



August 29, 2003

Mary L. Cottrell, Secretary  
Department of Telecommunications and Energy  
One South Station  
Second Floor  
Boston, MA 02110

**Re: D.T.E. 01-68**

Dear Secretary Cottrell:

I am enclosing the September 2003 Quarterly Report in the above-captioned docket. Thank you very much for your time and attention to this matter.

Very truly yours,

Judy Y. Lee

cc: Service List

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Massachusetts Electric Company  
and  
Nantucket Electric Company

September 2003  
Quarterly Report

August 29, 2003

Submitted to:  
Massachusetts Department of  
Telecommunications and Energy  
D.T.E. 01-68

Submitted by:

Massachusetts Electric

A **National Grid** Company



Nantucket Electric

A **National Grid** Company



## **I. Introduction**

At the end of the summer of 2001, the Department asked all Massachusetts utilities, including Massachusetts Electric Company (“MECO”) and Nantucket Electric Company (together, the “Company”) to undertake a critical self-assessment of their ability to provide reliable distribution service to their customers. On October 29, 2001, the Company filed a comprehensive ten volume response (“Reliability Report”), which gave detailed information about the various factors that contribute to the Company’s provision of reliable distribution service: growth forecasting; communication and notification procedures during outages; use of emergency generators and other equipment; personnel staffing and deployment during outages; weather forecasting; and maintenance and design of the distribution system. In the Reliability Report, the Company also analyzed its performance during the summer of 2001 and identified concrete steps that it was taking to improve future reliability. On March 22, 2002, the Department issued an order (“March 22<sup>nd</sup> Order”) on the Company’s Reliability Report, directing the Company to address several suggestions for improving each of the various factors, report on several follow-up items, and provide the Department with a report assessing its expected ability to respond adequately during the summer of 2002. The March 22<sup>nd</sup> Order also required the Company to make annual and quarterly reports for the next two years regarding certain reliability factors. On June 7, 2002, the Company filed its Compliance Filing and Report on Summer 2002 Readiness (“June 2002 Report”), and has since made filings each quarter, most recently in June of 2003 (“June 2003 Report”). This filing is the Company’s next compliance filing required by the Department’s order in this docket.

## **II. Discussion**

For each of the quarterly reports, the Department has requested information from the Company regarding the use of emergency generators and other equipment; personnel staffing and deployment, including employee hiring and training and emergency assistance resource sharing; and maintenance and design, including tree trimming and pole replacement activities. This report provides an update to the Department from the June 2003 Report.

### **A. Use of Emergency Generators and Other Equipment**

As described in earlier reports, the Company has contracted and established deployment procedures for three emergency generator units to be used during emergency conditions. Each individual emergency generator unit is a two-megawatt trailer-mounted, diesel engine. There was no new activity regarding these three emergency generator units and their deployment during this period, other than the approval of the Company's air permit applications and the issuance of air permits on August 2, 2003 by the Massachusetts Department of Environmental Protection.

The Company has also leased four additional two-megawatt trailer-mounted, diesel engine emergency generator units to be used during emergency conditions for the four-month period from June to September 2003. Thus, the Company now has a total of fourteen megawatts of portable emergency generation. The Company has designed a contingency plan around these four additional emergency generator units to supplement its current interim back-up plan. This contingency plan provides for the expedited connection of the four additional emergency generator units to the Company's distribution system for the purpose of mitigating, if necessary, the impact of prolonged outages caused by failures to the existing power cables in the Cape Ann

area. There was no new activity regarding these four emergency generator units and their deployment during this period.

## **B. Personnel Staffing and Deployment**

The Department has directed the Company to provide information on the progress of the hiring and training of 125 engineering and physical workers and the Company's emergency resource assistance sharing activities.

### **1. Employee Hiring and Training**

The June 2002 Report detailed the anticipated hiring and training of 125 engineering and physical workers in New England.

As described in the June 2003 Report, the Company has hired seventy-five physical workers in Massachusetts,<sup>1</sup> thus completing its share of the 125 worker New England-wide hiring target described in the June 2002 Report. The hiring of the 125 engineering and physical workers in New England is now complete. Any subsequent open positions will be filled pursuant to the Company's agreement with the union. All the physical workers, including the seventy-five physical workers in Massachusetts, are receiving extensive and ongoing training appropriate to their particular job classification.

### **2. Emergency Assistance Resource Sharing**

The Company's emergency assistance resource sharing policy remains as described in the Reliability Report. Since the filing of the June 2003 Report, the Company received emergency

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<sup>1</sup> As described in previous reports, nineteen open positions in Massachusetts were supervisory, engineering, and technical support positions, and as detailed in the December 2002 report, all nineteen of these positions have been filled.

cable repair assistance in the Company's North Shore District from its Rhode Island affiliate, The Narragansett Electric Company, from June 26<sup>th</sup> to 28<sup>th</sup>.

### **C. Maintenance and Design**

With regard to maintenance and design, the Department has asked for a report on tree trimming activities, including procedures, schedules, and a description of the cooperation by and coordination with communities. The Department has also requested quarterly information on pole replacement activities, including procedures for surveying poles and working with other utilities in this process, with particular attention paid to addressing the root cause of the excessive proliferation of doubled poles through improved coordination with owners and lessees of poles and the systematic removal of such doubled poles. The Company's tree trimming and pole replacement activities are described below.

#### **1. Tree Trimming**

The Company's tree trimming procedures and circuit-based trimming program remain as described in the June 2003 Report. The Company's tree trimming staff and process for coordinating with communities remain as described in the June 2002 Report.

The Company is continuing to conduct its tree trimming activities under the umbrella of its New England Distribution Vegetation Management Program ("Program"). As described in the June 2003 Report, the Program is designed to prioritize tree trimming activities on a feeder reliability analysis basis (i.e. tree trimming takes place where the greatest gains in feeder reliability will be realized). From the Program's inception in April 2003 to the end of July 2003, the cost per mile trimmed for MECO has decreased by six dollars to \$3,413 per mile trimmed. The four-year historical average cost per mile trimmed for MECO is \$3,419 per mile trimmed.

The Company trimmed 828 miles<sup>2</sup> in the first quarter of 2003, a 116% increase over the miles trimmed in the previous quarter. During the second quarter of 2003, the Company trimmed 668 miles, representing a nine percent decrease in miles trimmed as compared with the previous quarter. During the month of July 2003, the Company trimmed 186 miles. The following table shows the Company's tree trimming mileage attainments on a quarterly basis for the calendar year 2003:

<b>Massachusetts Electric Company (MECO) and Nantucket Electric Company (NECO) Vegetation Management Program</b>					
<b>MILES OF TRIMMABLE CIRCUITS MAINTAINED IN CALENDAR YEAR 2003 BY QUARTER</b>					
<b>GEOGRAPHIC AREA</b>	<b>1st QUARTER 01/01/03 TO 03/31/03</b>	<b>2nd QUARTER 04/01/03 TO 06/30/03</b>	<b>3rd QUARTER 07/01/03 TO 09/30/03</b>	<b>4th QUARTER 10/01/03 TO 12/31/03</b>	<b>TOTAL YEAR TO DATE</b>
	<b>ATTAINED</b>	<b>ATTAINED</b>	<b>ATTAINED</b>	<b>ATTAINED</b>	<b>ATTAINED</b>
NORTHSHORE	58.00	47.00			105.00
MERRIMACK VALLEY	136.00	171.00			307.00
<b>BAY STATE NORTH</b>	194.00	218.00	0.00	0.00	412.00
SOUTH SHORE	84.00	65.00			149.00
SOUTHEAST	219.00	87.00			306.00
<b>BAY STATE SOUTH</b>	303.00	152.00	0.00	0.00	455.00
CENTRAL	150.00	107.00			257.00
MONSON / SPENCER	81.00	93.00			174.00
WESTERN	100.00	98.00			198.00
<b>BAY STATE WEST</b>	331.00	298.00	0.00	0.00	629.00
<b>MECO/NECO TOTAL</b>	<b>828.00</b>	<b>668.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1496.00</b>

The decrease in miles trimmed in the second quarter of 2003 as compared with the first quarter of 2003 is due to 504 miles of trimmable circuits on 25 feeders being reserved for completion by lump sum competitive bid. The Company began trimming circuits by lump sum competitive bid for the first time during the previous fiscal year ended March 31, 2003, and all of

<sup>2</sup> All miles reported in this section refer to trimmed miles (i.e. actual miles of trees trimmed), as opposed to linear distance miles. The conversion factor between the two methods of measuring tree trimming attainment is twenty-

the lump sum competitive bid work for the previous fiscal year was accomplished during the first quarter of 2003. The Company solicited lump sum competitive bids in June 2003 for the 504 miles of trimmable circuits. Currently, the bids are being analyzed to determine whether it is more cost effective to complete this work on a time and materials basis or by lump sum competitive bid. Also, a “National Grid – New England – Vegetation Management Distribution Line Maintenance Lump Sum Bid Program Manual,” dated May 27, 2003 and attached hereto as Exhibit A, was developed and implemented to address and standardize the lump sum competitive bid component of the tree trimming program.

## **2. Pole Replacement Activities**

As reported earlier, the Company has worked closely with other pole owners in Massachusetts, including Verizon, NStar, Western Massachusetts Electric Company, and Fitchburg Gas & Electric Company, to establish a common database for the purpose of tracking doubled pole locations and transfer status for each company attached to these poles, notifying these attaching companies of their obligations via email, and providing reporting and management tools. The Pole Lifecycle Management (“PLM”) System is in service, and the loading of data from distinct Company and Verizon databases, data scrubbing, and the elimination of duplicate pole records in PLM has been completed. PLM is now being used to track new doubled poles as they are set by either the Company or Verizon.

As of August 2003, as reported by PLM, approximately 11,923 doubled poles exist in the Company’s system.<sup>3</sup> Of these 11,923 doubled poles, 471 are ready for removal by the Company and 2,418 are ready for the Company to transfer its facilities. These numbers represent an increase of approximately four percent in the number of doubled poles (485 poles) in the

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seven percent.

<sup>3</sup> These numbers are subject to confirmation with Verizon.



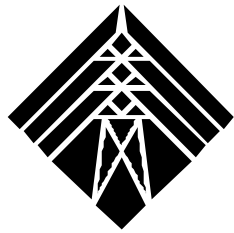
Company's service territory and a four percent decrease in the number of poles (seventy-seven poles) awaiting action by the Company, as compared to the May numbers reported in the Company's June 2003 Report. The three-month period from May to August is part of the active summer construction season when more pole sets occur. During this period, approximately 1,600 doubled poles were set and approximately 1,100 doubled poles were removed.

The Company is working to address the doubled pole issue. The Company is currently soliciting bids from contractors to remove the poles that are ready for removal by the Company. This pole removal contract will cover work on the existing backlog of poles ready for removal, as well as the work on the poles that become ready for removal in the future. In addition, the Company is preparing contract specifications to solicit bids from contractors for its pole transfers. As with the pole removal contract, this contract will cover work on the existing backlog of poles ready for transfer, in addition to the poles that become ready for transfer in the future. The Company will continue to provide the Department with updates on the PLM application and the anticipated reduction in doubled poles in its next quarterly report.

### **III. Conclusion**

The Company will continue to update and provide the progress reports required by the Department, as set forth in the Department's March 22<sup>nd</sup> Order.

EXHIBIT A



**National Grid**

***NEW ENGLAND***

***VEGETATION MANAGEMENT  
DISTRIBUTION LINE  
MAINTENANCE  
LUMP SUM BID  
PROGRAM MANUAL***

***MAY 27, 2003***

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# ***GLOSSARY***

**Adventitious buds-** Dormant buds located in a leader.

**Annual growth-** A yearly incremental stage of vegetation growing that can be visually determined by the annual nodes.

**Arborist/Forester-** Hereinafter referred to as “Arborist.” A National Grid USA employee whose role within their respective administrative district is to plan, budget, execute, and audit vegetation management projects; resolve customer issues; work closely with district vendor leadership to achieve performance goals & assist the administrative district with municipality relations/issues. Additionally, to participate in managing storm restoration; implement program policies/programs & provide regular status updates.

**Brush-** Vegetation less than four inches DBH that may reach the overhead facilities at maturity.

**Clearance-** The distance between vegetation and the overhead facilities.

**Company-** This represents the National Grid USA Retail Distribution companies.

**Construction type-** The configuration and design of the lineal overhead facilities.

**DBH-** The diameter of vegetation measured at a point four and one half feet above ground level.

**Dominant-** Exerting ecological or genetic superiority.

**Dormant-** Not actively growing but protected from the environment.

**Flat cutting-** The practice of cutting vegetation at ground level under or adjacent to overhead facilities, where the vegetation has the potential to interface with the overhead facilities.

**Hazard-** Vegetation which appears to: be dead or dying, be structurally weak, have loss of bark, have loss of foliage, and have stress breaks.

**Lateral branch-** A branch extending from a parent branch or stem.

**Line clearance-** The practice of removing vegetation from around overhead facilities.

**Main leader-** A dominant upright stem, usually the main trunk.

**Multiple leaders -** Many stems of vegetation originating from the same root system.

**Node-** A point on a stem at which a leaf or leaves are attached.

**Overhead facilities-** All electrical conductors and equipment that are attached to a utility pole and are used for the conveyance of electricity.

**Permission-** The act of receiving approval from the appropriate property owner, where the vegetation is located, in order to perform necessary preventative maintenance on the vegetation.

**Plant-** Relative to distribution vegetation management purposes, the definition is a tree, vine, or shrub.

**Preventative maintenance-**The pruning, trimming, removal or chemical treatment of vegetation, growing or existing in proximity to overhead facilities, for the purpose of preventing such growth from interfering with the overhead facilities.

**Pruning-** The removal, in a scientific manner, of dead, dying, diseased, interfering, objectionable, and/or weak vegetation branches.

**Scaffold branch-** A large limb that is, or will be part of the permanent branch structure of a tree.

**Shrub-** A low usually multi-stemmed woody plant.

**Sucker growth-** New growth originating from adventitious buds. Usually induced by removing a branch.

**Tree-** A woody perennial plant having a single usually elongate main stem.

**Trim-** See “Pruning”

**Trim cycle-** A predetermined period of time between preventative maintenance activities.

**Trim zone-** The area in and around overhead facilities where vegetation is removed.

**Vegetation-** Plant life such as trees, shrubs, vines, and brush that has a potential to interface with overhead facilities.

**Vendor-** A Vegetation Management service provider who has a Purchase Order to provide such services to the National Grid USA companies, Districts, and Arborists.

**Vine-** A plant whose stem requires support and which climbs by tendrils or twining.

***NATIONAL GRID USA companies***

***NEW ENGLAND***

***DISTRIBUTION LINE***

***VEGETATION MANAGEMENT  
REQUIREMENTS***

***May 27, 2003***

## ***PURPOSE***

To define a set of Distribution Line Vegetation Management Requirements that is implemented by the Company on a uniform basis. These requirements are to lay out the specifications for routine preventative maintenance and removal of; dead, unsound, and structurally weak branches and leaders. The Company's Distribution Line Vegetation Management Requirements are designed to address reliability and safety through the understanding of the dynamic interaction between vegetation and overhead facilities.

## ***TRIM CYCLE***

The recommended trim cycle is a five-year cycle with a three-year interim trim. The trim cycle is implemented on an annual basis, by identifying the feeders that are due to be trimmed and prioritizing them on a reliability performance basis. The interim trim is implemented by identifying which feeders are halfway through the cycle. They are surveyed for growth and hazard situations and then prioritized for interim trimming. Customer Service lines are only trimmed on the trim cycle basis unless the Arborists determines that a special condition exists requiring an interim trim.

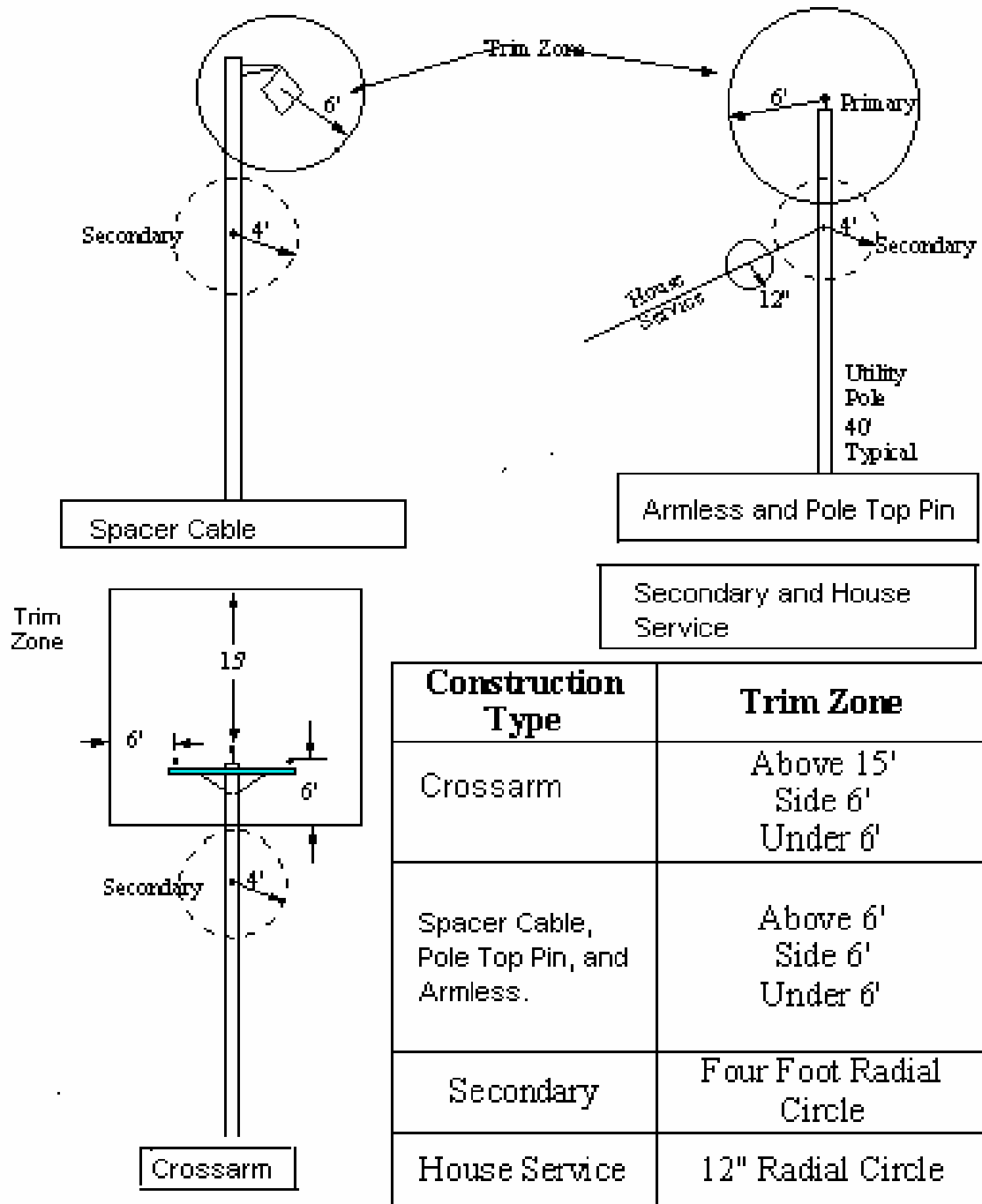
## ***TREE TRIMMING ZONE SPECIFICATION REQUIREMENTS***

Table A below illustrates the clearance distance required by the Company for all distribution line clearance maintenance activities based on Overhead facilities construction types. As with all programs there are exceptions to the rules and additional special conditions requirements. These are all clearly spelled out in the following sub-sections. These specifications are designed to prevent vegetation capable of interfering with the overhead facilities, from encroaching upon them, within a four-year period.

**TABLE A**

<b>CONSTRUCTION TYPE</b>	<b>TRIM ZONE</b>
ALL CROSS ARM CONSTRUCTION	ABOVE 15'  SIDE 6'  UNDER 6'
ALL SPACER CABLE, POLE TOP PIN, AND ARMLESS CONSTRUCTION	ABOVE 6'  SIDE 6'  UNDER 6'
TRIPLEX AND RACKED SECONDARY	FOUR FOOT RADIAL CIRCLE
HOUSE SERVICE	12" RADIAL CIRCLE

# Vegetation Management Distribution Line Maintenance Minimum Requirements





## ***HAZARD REMOVALS WITHIN TRIM ZONE***

Remove all hazardous branches from above or adjacent to the overhead facilities to protect the facilities until the next trim cycle.

## ***SELECTIVE FLAT-CUTTING WITHIN THE TRIM ZONE***

Targeted for flat cutting will be tree species that are under the electric conductor(s) and are over 8' in height.

## ***TRIM ZONE EXCEPTIONS***

### **Clearances restricting trim zone requirements**

**Permissions restrictions-**In the event that permission from a property owner to trim or remove in accordance with these specifications cannot be obtained, the following steps will be taken:

*LIGHT TRIM-* Computer or form entry with inclusion of town, street address and pole number.

*REFUSAL TO TRIM-* Computer or form entry with inclusion of property owner name, address, telephone number, pole number, description of site, and if possible, signature of property owner.

*REFUSAL FOR HAZARD REMOVAL-* If permission is denied for the removal of a hazardous limb/tree a computer or form entry with inclusion of the property owners name, address, telephone number, pole number, description of defect or hazard and if possible, property owners' signature. These serious hazards warrant a photo of the tree and follow up by the Arborist.

\*Above information will be provided back to the Arborist on a regular basis, as identified.

**Structural restrictions-** In the event that the main leader and/or scaffolding branches fall within the trim zone are determined not to interfere with the overhead facilities; structurally sound and; free of sucker growth within the trim zone, then the main leader and/or branch may remain in the trim zone.

## ***TYPES, METHODS, AND TECHNIQUES***

### **Acceptable Tree Trimming Types**

There are three basic types of trimming that will be discussed in this section. They include; Crown Reduction (Top trimming), Side trimming, and Overhang trimming. There are two additional trimming terms used when discussing trimming types and they are under trimming and V or Through trimming. They will not be listed as separate types because they usually involve one or more of the types already listed. The type of trimming that is selected to be used should be based upon the tree to overhead facility relationship, factoring in the type of tree being trimmed and its growth habits. The ultimate goal is to achieve the necessary clearance to provide a continuous supply of reliable electrical service free of interference from trees while maintaining, as close as possible, the natural characteristics of the tree being trimmed.

**Crown Reduction** - This type of trimming is also called "Top trimming". It is best when used on slow growing trees. The trimming methods employed to accomplish this affect include drop crotching and/or directional trimming. The trimming type reduces the top of the trees crown when the tree is directly located underneath the overhead facilities and is intended to give the tree a natural look. The trimming should be done with as few cuts as possible and the branches should cut back to a leader, which will minimize the potential for sucker growth.

**Side Trimming** - Trees growing adjacent to, into, and towards overhead facilities should be side trimmed by removing the entire branch back to the main leader or at least free of the trim zone. Trees with branches that produce sucker growth when cut should definitely be removed. Care should be taken to reduce the effect of unsightly notches by shaping adjacent branches.

**Overhang Trimming** - This is where the overhead facilities pass under a portion of the crown and the lower branches are removed to provide trim zone overhead clearance. If it is not possible to totally remove overhangs, then every attempt should be made to reduce the weight of the overhang by trimming the branches. All dead, damaged, or weakened overhang branches must be removed.

### **Acceptable Tree Trimming Methods**

There are two basic methods employed in utility line clearance trimming, "Drop Crotching" and "Directional Trimming". These are the two methods that will be accepted by the arborists. On occasion a vendor may be requested to apply an alternative method to fulfill a special set of needs or criteria. Although not considered a trimming method, trees that are approximately 15 feet in height should be trimmed at the nodes. Alex Shigo calls this "First Order Pruning". The branches that should be retained are those that will produce future growth directionally away from the overhead facilities.

**Drop Crotching** - This method of trimming calls for removing some of the larger branches at variable distances below the top of the crown. It is intended to retain as much of the natural characteristics of the tree as possible while thinning the crown of the tree. This method of trimming should eliminate future sucker growth, when proper nodal pruning cuts are made, and reduces the amount of trimming work required in subsequent trimming operations.

**Directional Trimming** - The intent of this method is to direct future growth away from the overhead facilities. It is accomplished by cutting the growth to a lateral branch, which will redirect its future growth away from the overhead facilities.

In Dr. Alex L. Shigo's publication, "Pruning Trees Near Electric Utility Lines" he indicates that 90% of the time 3 branches can be removed to provide 90% of the clearance, which is his 90-3-90 concept. When utilizing these two methods to accomplish a trimming type, this concept should be considered as an employable technique. The use of the two methods will provide the maximum amount of clearance necessary to assure proper clearance from the overhead facilities while minimizing the amount of tree deformation occurring.

### **Acceptable Pruning Techniques**

Pruning techniques and practices are fully explained and diagramed in ANSI A-300, and another excellent reference is Dr. Alex L. Shigo's publication "Pruning Trees Near Electric Utility Lines". Given the fact that these publications provide as excellent guides for this subject area, we feel that there is no need for further explanation.

## ***HAZARD MITIGATION***

All vegetation hazards which take one hour or more to remove should not be looked at as a preventative maintenance function but as a hazard mitigation function and should be managed as such. The hazard removal should be identified by the nearest pole location and should be scheduled for removal by a hazard mitigation crew, unless the hazard poses an immediate outage or safety situation. In the event of an immediate outage or safety situation the vendor should immediately notify the Arborist for a determination of removal by the vendor.

***NATIONAL GRID USA companies***

***NEW ENGLAND***

**VEGETATION MANAGEMENT  
*VENDOR***

***REQUIREMENTS***

***FOR***

***LUMP SUM BID CREWS***

***May 27, 2003***

## ***PURPOSE***

To define the role and expectations of the Company's vendors in relation to vegetation management activities performed by the Vendor's Lump Sum Bid crews for the Company. The role and expectations will include such items as; personnel, equipment, customer relations, government relations, Utility relations, storm emergency implementation procedures, time management, wood waste management, and other related items.

## ***VENDOR REQUIREMENTS***

### ***PERSONNEL***

The vendor shall determine and provide the appropriate level of supervision required to maintain high quality workmanship and optimum productivity in a cost effective manner and in accordance with the supervisory requirements defined in this Chapter.

The vendor is to provide the appropriately trained and certified labor force required to maintain high quality workmanship and optimum productivity while implementing the vegetation management requirements and vendor requirements.

All services are billable in accordance with the awarded vendor Lump Sum bid prospectus. Any services required by the Arborist, which are not on the awarded vendor Lump Sum bid prospectus will be paid hourly and in line with the vendors T & M submitted rate sheets or will require prior approval from the System Arborist and Supply Chain.

## ***VEGETATION MANAGEMENT SERVICES***

**Preventative Maintenance-** Those services as described in the "Distribution Line Vegetation Management Requirements" section. All Preventative maintenance will be conducted on reliability prioritized and Lump Sum Bid awarded feeder basis.

**Hazard Tree Mitigation-** Those services as described in the "Distribution Line Vegetation Management Requirements" section entitled Hazard Mitigation. The vendor personnel should continuously look for hazardous conditions, assess level of severity, and identify the hazard location by street and pole number. They should immediately report such hazard conditions to their immediate supervisor for reporting to the Arborist. In the event that they cannot reach their immediate supervisor, they should directly notify the Arborist.

**Re-trims** - All work which is determined by the Arborist to be inside the “Distribution Line Vegetation Management Requirements” which does not have documentation as to why the “Distribution Line Vegetation Management Requirements” could not be met will be required to be re-trimmed at the vendors expense. Any work that gains a change in permission status after trimming has occurred will be re-trimmed at the vendors expense.

## ***CUSTOMER RELATIONS***

Workers shall be properly attired and act in a professional manner. Contact with customers shall be done in a businesslike manner and all requests shall be clear and precise to avoid customer misunderstanding or apprehension. Should there be a serious misunderstanding with a customer, which the vendor cannot fully address or alleviate; the vendor shall notify the Arborist.

## ***UTILITY RELATIONS***

**Communication-** The vendor labor force will contact the Company daily and report; work location and daily location changes, observed overhead facility problems and outages particularly crew caused outages.

The vendor shall communicate with the Arborist on a weekly basis on such matters including but not limited to work progress. The Arborist will have a two week period, from the time of work progress notification, in which to review the work reported complete for compliance with the “Distribution Line Vegetation Management Requirements”. At which time the Arborist will provide a list of Re-trims to be completed for work which the Arborists interprets as not being in compliance.

**Invoicing-** The vendor will invoice for work completed on a periodic basis, as determined by the vendor. All Lump Sum Bid work is to be completed by the 31<sup>st</sup> day of January. All corrective re-trims will be completed by the 1<sup>st</sup> of March. In any event no invoice will be processed and paid until all invoice associated work has been completed and/or remediated. Any work not successfully completed and/or remediated by March 1<sup>st</sup>, will be redirected to another vendor on a T & M basis to be completed by that vendor utilizing the allocated unexpended funds of the Lump Sum contract.

**Remediation-** Any technical clarifications or issues that need to be resolved between the Lump Sum vendor and the Arborist, will be remediated by the New England System Arborist. Any Contractual clarifications or issues that need to be resolved between the Lump Sum vendor and the Arborist, will be remediated by the appropriate Supply Chain Purchasing Agent. All local remediation should first be attempted to be resolved between the Lump Sum Vendor and the Arborist.

**Data Management-** The vendor is responsible for collecting, on company provided electronic data collectors, the required data information requested. In the event that an electronic data collector is not available, then data collection forms will be provided by the company requesting the relevant data information required. The vendor's personnel are responsible for the accuracy of the data that they are reporting and the safe handling of the electronic data collector. If the vendor's personnel breaks the data collector and it is found by the Company to be due to negligence on the vendor's personnel behalf, then the vendor will be charged for the replacement of the electronic data collector.

**ALL DATA INFORMATION COLLECTED ON BEHALF OF A NATIONAL GRID USA COMPANY IS CONFIDENTIAL AND THE SOLE OWNERSHIP OF NATIONAL GRID USA.**

### ***STATE RELATIONS***

The vendor is responsible for notifying the proper state official for all proposed vegetation management activities on state highways. If a permit is required, the company shall obtain the permit. Under specific situations, the Arborist will obtain the necessary permits. Copies of required permits will be kept on site with the crew.

### ***PERMISSIONS***

The Vendor will be responsible for determining and implementing the most cost effective approach, for the company, in obtaining permission.

**Private property-** The Vendor must obtain permission from all private property owners prior to working on private property, except where noted by the Arborist. The vendor will provide the customer, if not at home, with a Company Vegetation Management Program door knocker brochure and a vendor permission card. If the vendor is not provided with Company approved door knockers and permission forms, then the vendor will utilize their own company produced forms. The vendor shall make a minimum of three documented and reasonable attempts at gaining permission from private property owners. All subsequent skips should be reported to the Arborist for follow up. The vendors crews will not trim or remove vegetation if contact with private property owners cannot be made or if the private property owner refuses to grant permission.

**Municipal property -** The vendor shall obtain permission to do tree work on municipal trees from the proper authority before doing the work. The vendor shall notify the proper municipal official (e.g. Tree Warden, etc.) and let them know where the vendor crews will be working. If a municipal official refuses clearances as specified in the "Distribution Vegetation Management Requirements" the vendor should document the restriction and inform the Arborist.

**Permissions restrictions -** In the event that permission from a property owner to

trim and remove trees in accordance with these specifications can not be obtained, the following steps will be taken:

**Light trim-** Computer or paper form entry with inclusion of town, street address and/ or pole number.

**Refusal to trim-** Computer or paper form entry with inclusion of property owner name, address, telephone number, pole number, description of condition and possible signature.

**Refusal for hazard removal-** If permission is denied for removal of a hazardous limb or tree, a computer or form entry with inclusion of the property owner's name, address, telephone number, pole number, description of condition and possible signature. These serious hazard conditions warrant immediate follow up, including a photo of the tree by the vendor supervisor or the Arborist.

All information above will be reported back to the Arborist on a regular basis

### ***EQUIPMENT***

The vendor will provide equipment necessary for the performance of the requested services in accordance with the "Distribution Line Vegetation Management Requirements" and the Purchase Order. This equipment shall be properly maintained, in good operating and presentable condition. The equipment must meet all applicable DOT, ANSI and OSHA Regulations/Standards.

Any equipment required by the Arborist, which are not part of the vendor submitted Lump Sum Bid, will require prior approval from the System Arborist and Supply Chain and if approved, will be billable at the Vendors submitted T & M hourly rate.

The vendor shall be responsible for supplying, at a minimum, a properly operating pager to all supervisory personnel identified as such relative to the awarded Lump Sum Bid. This is imperative for both normal business and emergency response.

### ***WORK SITE CLEAN-UP***

The vendor is responsible for all work sites to be properly cleaned of vegetation debris, including the legal and environmentally acceptable disposal of leaves, branches, wood, wood chips or slash in accordance with federal, state, and municipal regulations and guidelines.

In the Districts where wood chip disposal/work platform areas are provided, the woodchips must be free and clear of all trash and other undesirable debris that could reduce the resale of the woodchips. Attention to chipper maintenance for the consistent production of high quality woodchips is imperative.

### ***HOURS OF OPERATION***



**Normal work schedule** - – Sunday thru Saturday 7:00 AM to not later than 6:00 PM are the acceptable range.

**Travel and Chip Disposal Time-** The hours of operation are to include travel to and from the work site, fuel time, and wood chip disposal.

### ***STORM EMERGENCY RESPONSE***

**Lump Sum Bid Vendor Storm Response** - The Lump Sum crews will be allocated to all Divisions and their Districts on a retail company basis and based on need, at the discretion of the New England System Arborist. . Vendors will not be allowed to reallocate any Lump Sum Crews to another assignment outside the Company until the Company has been offered the first right of refusal.

### **Storm Equipped Aerial Lift Trucks**

All equipment required for storm response purposes shall be in a safe and reliable operating condition.

The following is required equipment during storm conditions:

Truck mounted aerial lift and lift to be a minimum of forty five foot platform height, and all necessary tools, equipment and clothing for storm restoration work including night lighting. Chippers are not required storm equipment unless requested by the Arborist.